## DEPARTMENT OF TRANSPORTATION

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September 23, 2002

11-SD-76-54.9/55.4 11-079104 ACSTP-P076(022)E

Addendum No. 2

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in SAN DIEGO COUNTY FROM 0.2 KM WEST OF RINCON RANCHO ROAD TO 0.3 KM EAST OF RINCON RANCHO ROAD..

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on September 26, 2002.

This addendum is being issued to revise the Notice to Contractors and Special.

In the Special Provisions, Section 10-1.27, "EARTHWORK," is revised as attached.

To Proposal and Contract book holders:

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the proposal.

Submit bids in the Proposal and Contract book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

This office is sending this addendum by confirmed facsimile to all book holders to ensure that each receives it.

If you are not a Proposal and Contract book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

ORIGINAL SIGNED BY:

REBECCA D. HARNAGEL, Chief Office of Plans, Specifications & Estimates Office Engineer

Attachment

## 10-1.27 EARTHWORK

Earthwork shall conform to the provisions in Section 19, "Earthwork," of the Standard Specifications and these special provisions.

Surplus excavated material shall become the property of the Contractor and shall be disposed of in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

Surplus excavated material not designated or determined to contain aerially deposited lead shall become the property of the Contractor and shall be disposed of in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

Where a portion of the existing surfacing is to be removed, the outline of the area to be removed shall be cut on a neat line with a power-driven saw to a minimum depth of 50 mm before removing the surfacing. Full compensation for cutting the existing surfacing shall be considered as included in the contract price paid per cubic meter for roadway excavation and no additional compensation will be allowed therefor.

Reinforcement or metal attached to reinforced concrete rubble placed in embankments shall not protrude above the grading plane. Prior to placement within 0.6-m below the grading plane of embankments, reinforcement or metal shall be trimmed to no greater than 20 mm from the face of reinforced concrete rubble. Full compensation for trimming reinforcement or metal shall be considered as included in the contract prices paid per cubic meter for the types of excavation shown in the Engineer's estimate, or the contract prices paid for furnishing and placing imported borrow or embankment material, as the case may be, and no additional compensation will be allowed therefor.

Project blasting shall conform to Sections 7-1.10. "Use of Explosives", and 19-2.03, "Blasting," of the Standard Specifications, and to the following:

- 1) The Contractor shall make and document a pre-blast survey of properties and improvements located within 100 m of the blasting site. Pre-blast surveys shall be made no more than 45 days in advance of the planned commencement or resumption of blasting operations, The pre-blast surveys shall, as a minimum, contain the following:
  - a) The names of the property owner and occupants, the address of the property, the date and time of the inspection.
  - b) The name of the person making the inspection.
  - c) A complete description of the structure(s) or other improvement(s).
  - d) A detailed interior inspection with each interior room (including attic and basement spaces) designated and described. All existing conditions of the walls, ceilings and floors such as cracks, holes and separations shall be noted.
  - e) A detailed exterior inspection fully describing the existing conditions of all foundations, walls, roofs, doors and windows, and porches.
  - f) A detailed listing, inspection and documentation of existing conditions of garages, outbuildings, sidewalks and driveways.
  - g) A survey of any wells or other private water supplies including total depth and existing water surface levels.

A resurvey of all locations will be required whenever blasting operations are either terminated or suspended for a period in excess of 45 calendar days.

The documentation may consist of either a written report, or a video tape with voice narration. The video tape, if used, must include the date and time displayed on the image.

Copies of the pre-blast inspection reports or video tape documentation shall be given to the Engineer at the time that the blasting plan is submitted.

2) The Contractor shall control project blasting so that vibration, fly rock and air noise do not cause damage to nearby structures, undue annoyance to nearby residents, or danger to employees on the project.

- 3) The Contractor shall submit a plan to the Engineer detailing how he proposes to control blasting. No blasting operation, including drilling, shall start until the Engineer has reviewed and approved this Blasting Control Plan in accordance with the provisions in Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications. The Contractor shall allow not less than 2 weeks for the Engineer to complete the review of the Plan. In the event that additional Blasting Control Plans are required, the Contractor shall provide at least 2 weeks for the review of each additional plan. Should the Engineer fail to complete his review within the time allowance and if, in the opinion of the Engineer, the Contractor's controlling operation is delayed or interfered with by reason of this delay in blasting plan review, the delay will be considered a right of way delay as specified in Section 8-1.09, "Right of Way Delays", of the Standard Specifications. Approval of the Contractor's blasting control plan or blasting procedures shall not relieve the Contractor of any of his responsibility under the contract for assuring the complete safety of his operations or for the successful completion of the work in conformity with the requirements of the plans and specifications.
- 4) The blasting control plan shall provide for limiting the maximum peak particle velocity of any one of the 3 mutually perpendicular components of ground motion in the vertical and horizontal directions, or their resultants, to 50 mm/sec at the nearest structures. It shall provide for limiting air noise levels to 125 dBC, and for controlling fly rock.
- 5) The plan shall indicate the type and method of instrumentation proposed to determine the ground motion particle velocity and air noise. At the Contractor's option, shot designs may be based upon a scaled distance following the chart below. The scaled distance is the ratio of distance in meters from the blast site to the site to be protected to the square root of the maximum explosive weight used for each delay of 9 milliseconds or more.

Distance to site to be protected	Scaled distance factor
0 to 91 meters	22.57 m/kg1/2
91 to 1524 meters	24.94 m/kg1/2
1525 or more meters	29.4 m/kg1/2

The Contractor shall keep accurate records of each blast.

Blasting records shall be available to the Engineer at all times and shall contain the following data as a minimum:

- 1) Blast identification by numerical and chronological sequence.
- 2) Location (referenced to stationing), date and time of blast.
- 3). Type of material blasted.
- 4) Number of holes, burden and spacing.
- 5) Diameter and depth of holes.
- 6) Height or length of stemming.
- 7) Types of explosives used.
- 8) Type of caps used and delay periods used.
- 9) Total amount of explosives used.
- 10) Maximum amount of explosives per delay period of 9 milliseconds or greater.
- 11) Powder factor (kilograms of explosive per cubic meter of material blasted).
- 12) Method of firing and type of circuit.
- 13) Weather conditions (including wind direction).
- 14) Direction and distance to nearest structure of concern.
- 15) Type and method of instrumentation.
- 16) Location and placement of instruments.
- 17) Instrumentation records and calculations for determination of ground motion particle velocity or for charge size based on scaled distance.

- 18) Measures taken to limit air noise and fly rock.
- 19) Any unusual circumstances or occurrences during blast.
- 20) Name of Contractor.
- 21) Name and signature of responsible blaster.

Blasting guards in sufficient numbers to assure that people, property and improvements will not be endangered shall be stationed around the blasting area during blasting operations.

Blasting operations may be suspended by the Engineer for any of the following:

- 1) Safety precautions taken are inadequate.
- 2) Ground motion particle velocity or air noise exceed the limits specified.
- 3) Blasting Control Plans have not been approved.
- 4) Required records are not being kept.

Suspension of blasting operations shall in no way relieve the Contractor of his responsibilities under the terms of this contract. Blasting operations shall not resume until modifications have been made to correct the conditions that resulted in the suspension.

Blasting complaints shall be accurately recorded by the Contractor as to complainant, address, date, time, nature of the complainant, name of person receiving the complaint, the complaint investigation conducted, and the disposition of the complaint. Complaint records shall be available to the Engineer at all times.

Full compensation for pre-blast survey shall be considered as included in the contract price paid per cubic meter for earthwork and no additional payment will be allowed therefor.